

Review Papers Related to k -cordial of Research Labeling of Graphs

M.V. Modha

M. D. Science College. Porbandar-360575, Gujarat, India

Review of a Research Paper entitled, "A-cordial Graphs".

Concise Summary:

Author: Mark Hovey.

Published in: Discrete Mathematics, Vol. 93 (1991), 183-194.

This paper contains the results on k -cordial labeling. The author proved that trees are 3, 4 and 5 cordial. Further the author conjecture that all trees are k -cordial for all k . The author provides a partial classification for cycles and complete graphs to become k -cordial. He also proved that for even k and $k > 4$, most graphs are not k -cordial.

Evaluation of Paper:

1. Positive Aspects:

- (i) The language used in the paper is easily comprehensible.
- (ii) The concept of A-cordial labeling is introduced and further categorization of it is done as k -cordial, e - cordial, n -cordial and 2-cordial.
- (iii) The author has extensively worked on k -cordial labeling.

2. Negative Aspects:

- (i) The paper is indistinctly written.
- (ii) Each and every case of the theorem clarified with examples.

3. Discrepancy:

Deviation in the proof of the result Cycles are k -cordial for all odd k . (for $n < k$)

Further Comment:

In this paper the author has predicted that for k even and $k > 4$, most graphs are not k -cordial. But in the course of the paper he has not been able to prove it correctly.

Review of a Research Paper entitled, "On k -cordiality of Cycles, Crowns and Wheels"

Concise Summary:

Author: Tao Ruihua.

Published in: Systems Science and Mathematical Sciences, Vol 11, No 3 (1998), 227-229.

In this paper the author proved the conjuncture "Cycles are k -cordial for all even k " made by M. Hovey. The author also proved the k -cordiality of crown and given a general statement for k -cordiality of Wheels under certain Conditions

Evaluation of Paper:

1. Positive Aspects:

- (i) The language used in the paper is easy to understand.
- (ii) Examples are cited for each result to make it understandable.

2. Negative Aspects:

- (i) The pattern in the proof of the result Crowns are k -cordial is not written in general form.
- (ii) More examples should be given.
- (iii) The proof the statement wheel W_n is k -cordial is not given.

3. Discrepancy:

The Proof of the Theorem Crowns are k -cordial is not at all clear.

Review of a Research Paper entitled, "On cordial k -Labeling"

Concise Summary:

Author: Maged Z. Youssef.

Published in: Australian Journal of Combinatorics, Vol 43 (2009), 31-37.

This paper includes some necessary conditions for a graph to be k -cordial for certain values of k . The author also gives some new families of 4-cordial graphs.

Evaluation of Paper:

1. Positive Aspects:

- (i) The language used in the paper is easy to understand.
- (ii) The paper is mathematically sound.
- (iii) He has given relation between k -cordial labeling and other labeling.

2. Negative Aspects:

- (i) The pattern is not given in the proof in all theorems.

(ii) Not a single general result is given to justify the title of the paper.

Further Comment:

The necessary condition for k -cordial labeling is given without proof for certain values of k .

REFERENCES

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